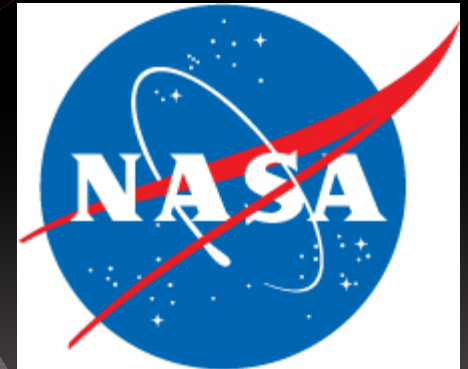


Social Networking and Collaboration at JPL

By Luke Dahl
Jet Propulsion Laboratory, California Institute of Technology

- Manager, Collaborative Engineering and Development Group
- Responsible for social networking and collaboration Software as a Service offering
- Been with JPL for 13 years



JPL is part of both NASA and Caltech

- JPL is a Federally Funded Research and Development Center (FFRDC) Managed by CalTech for NASA
- NASA's lead center for robotic exploration of the solar system. Have 19 spacecraft and 9 instruments across the solar system and beyond
- \$1.7B contract per year, ~ 5,000 employees; 177 acre facility located in Pasadena, CA, with 670K sq. ft. of office space and 900K sq.ft. of labs

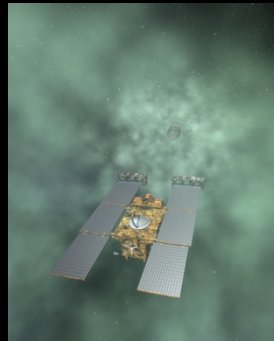


- Manages worldwide Deep Space Network
 - 3 Locations - Goldstone CA, Madrid Spain, Canberra Australia
 - Spacecraft Command & Control - Recording scientific data
- 50+ years experience in spacecraft design, production, operation
- JPL spacecraft have visited all planets in our solar system except Pluto!

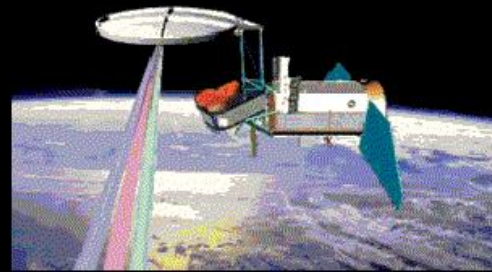
Near Term Mars & Solar System Exploration Events



✓ EPOXI
Comet Flyby
November 2010



✓ Stardust- NExT
Comet Flyby
February 2011



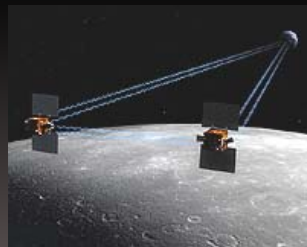
✓ Aquarius
June 10 2011



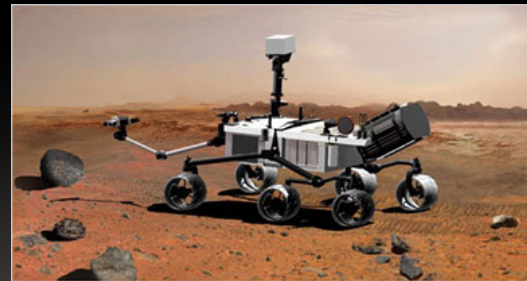
Juno
August 2011



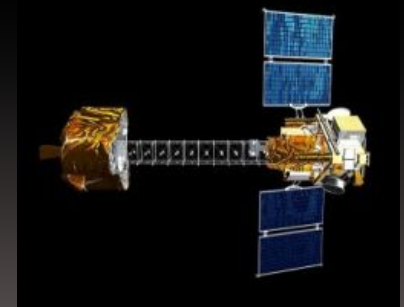
Dawn Vesta Arrival
August 2011
(Ceres, February 2015)



GRAIL
September 2011



Mars Science Laboratory
November 2011



NuSTAR
January 2012

Key Takeaways

- Look past the hype around “social” for business relevance and value
- Individuals struggle to manage their view of enterprise information
- Social platforms are key enablers – but are just a start
- Solving collaboration is key to success

Agenda

- The Opportunity: No central place for information
- Building the right architecture
- Lessons learned
- Alignment with an enterprise strategy

“If I can’t keep up with what’s happening, how am I expected to collaborate?”

Opportunity: No central place for information

Lab-wide Content

- Lab news
- Lab events
- Lab announcements

Org Level Content

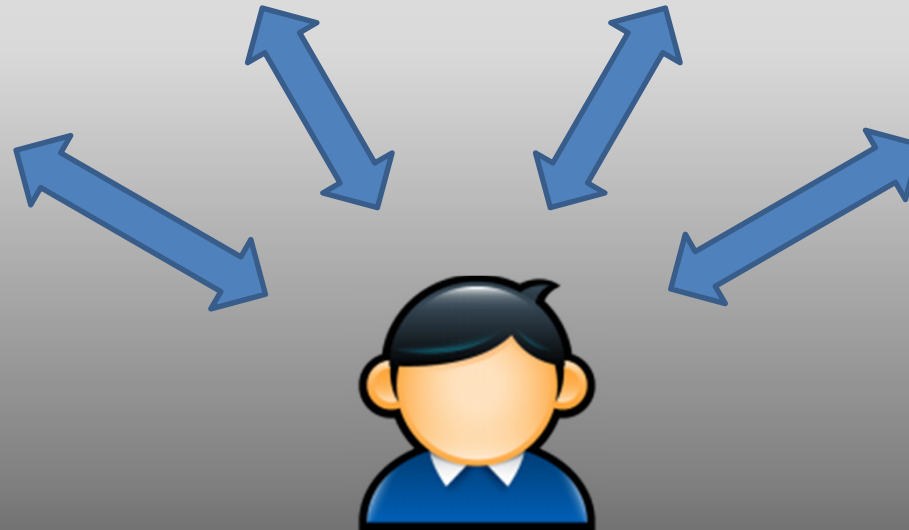
- Org news
- Org events
- Org announcements

Project Content

- Project news
- Project events
- Project announcements
- Project collaboration

Functional Content

- News
- Events
- Announcements



Search is not the silver bullet

Lab-wide Content

- Lab news
- Lab events
- Lab announcements

Org Level Content

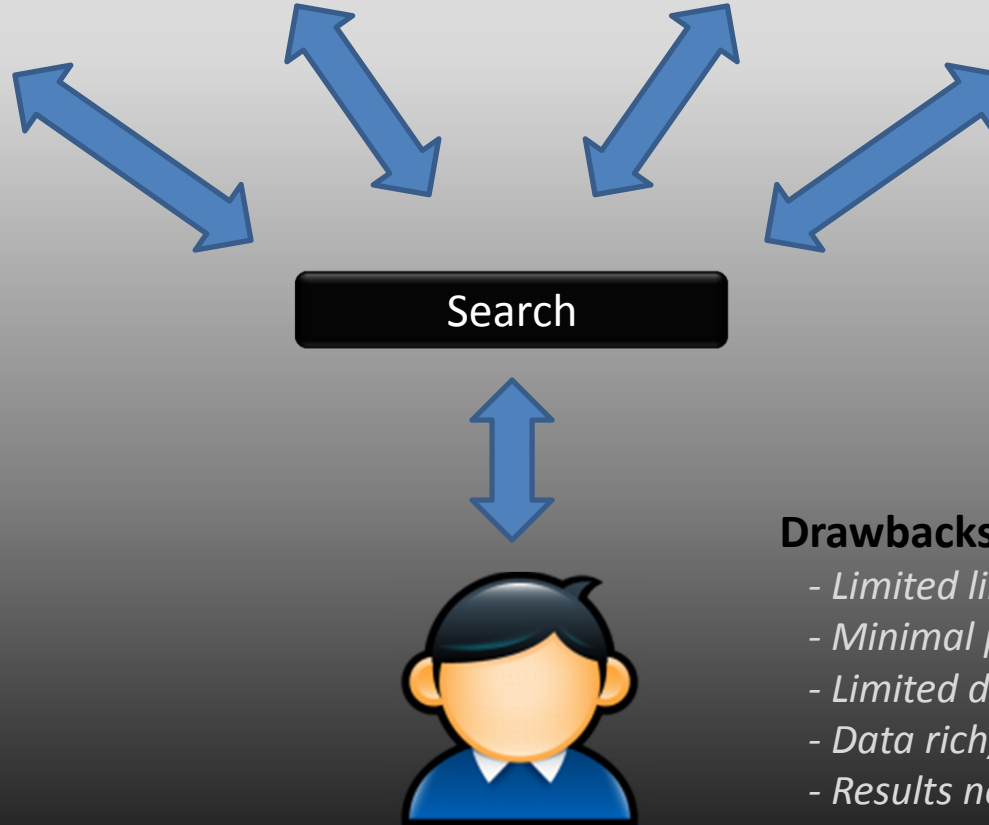
- Org news
- Org events
- Org announcements

Project Content

- Project news
- Project events
- Project announcements
- Project collaboration

Functional Content

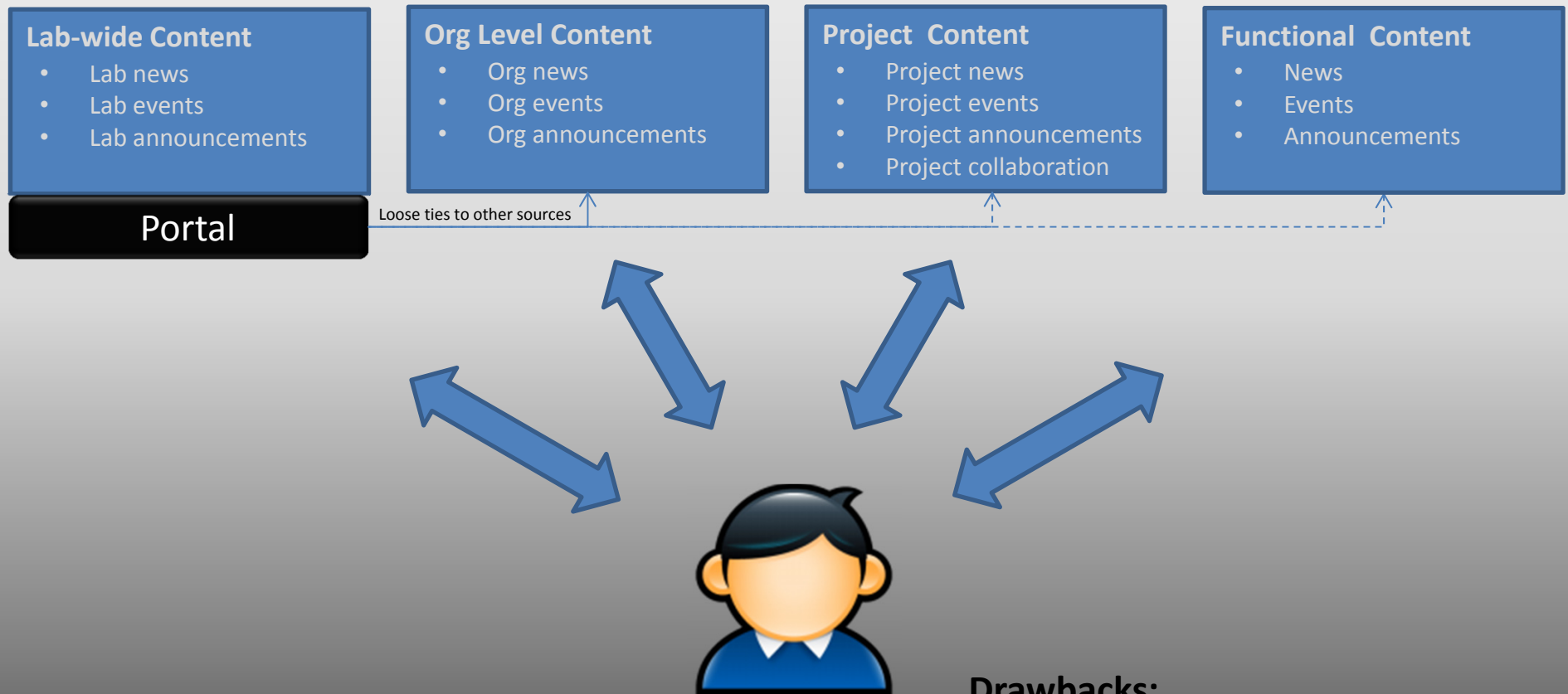
- News
- Events
- Announcements



Drawbacks:

- Limited link economy
- Minimal page rank effectiveness
- Limited discovery
- Data rich, information poor
- Results not personalized

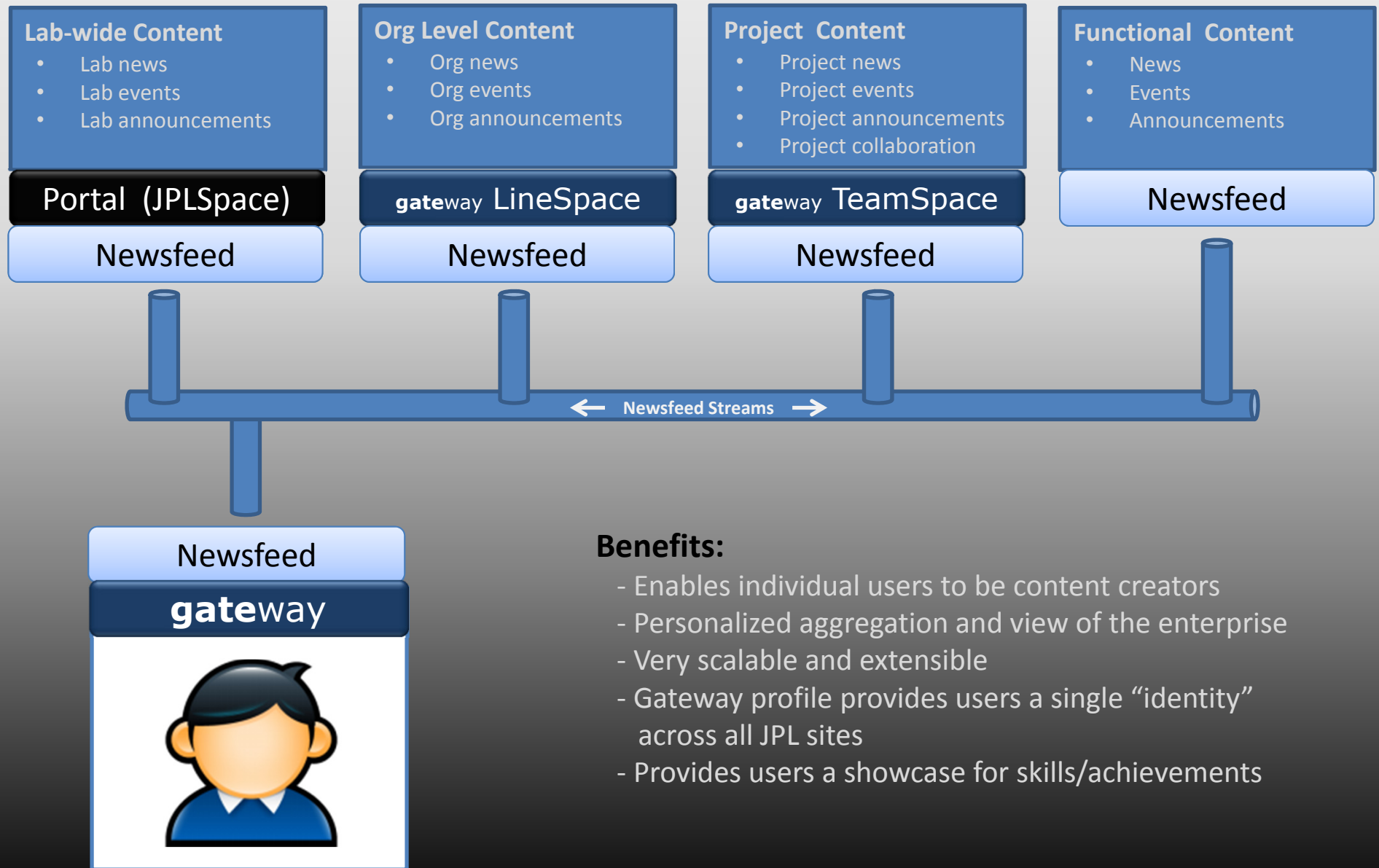
Hub-and-spoke (Web Portal)



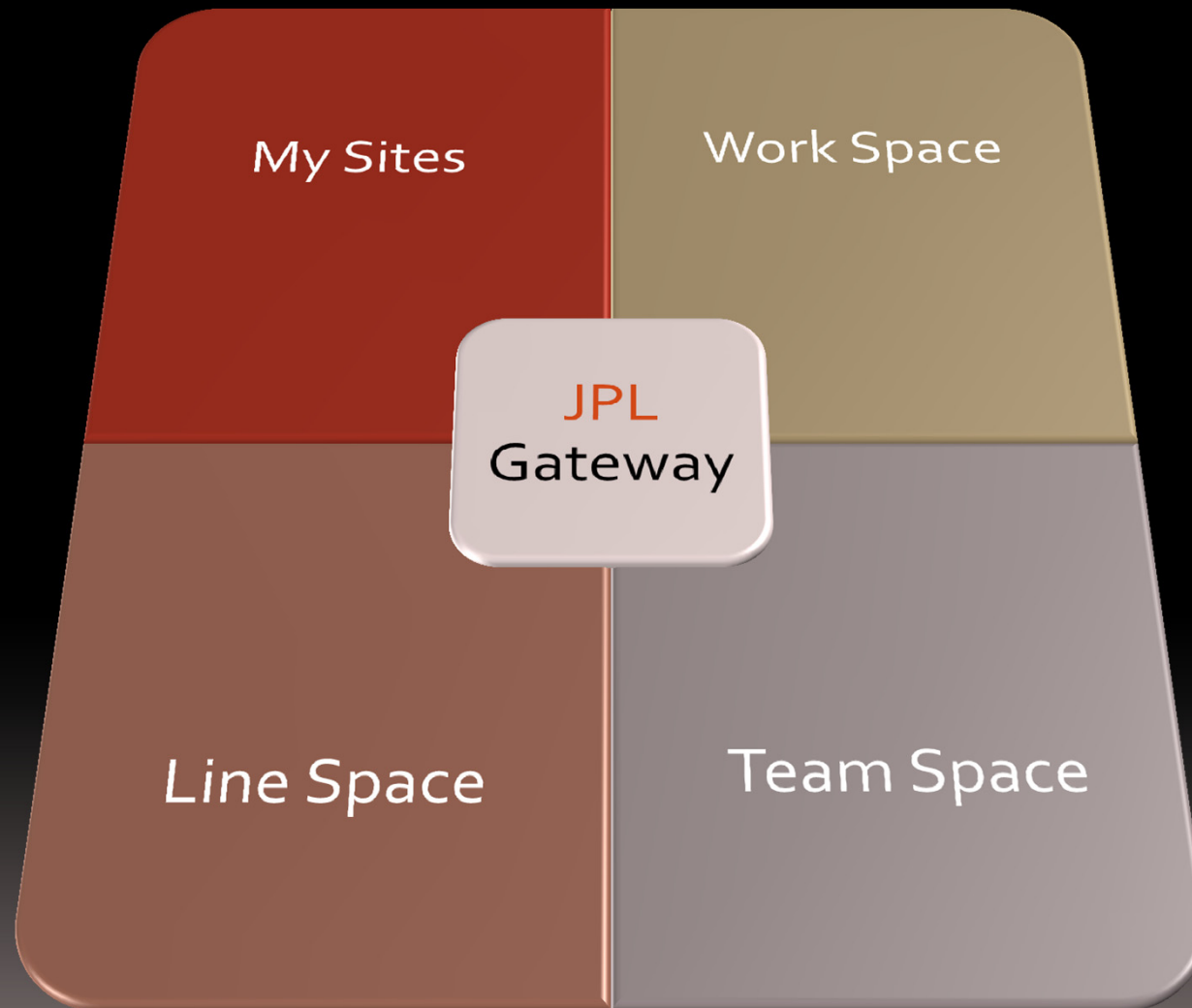
Drawbacks:

- Information bottleneck
- Portal must manually maintain links
- Does not scale with content growth
- Does not scale with content sources
- Cumbersome for content creators
- Users still have no central site

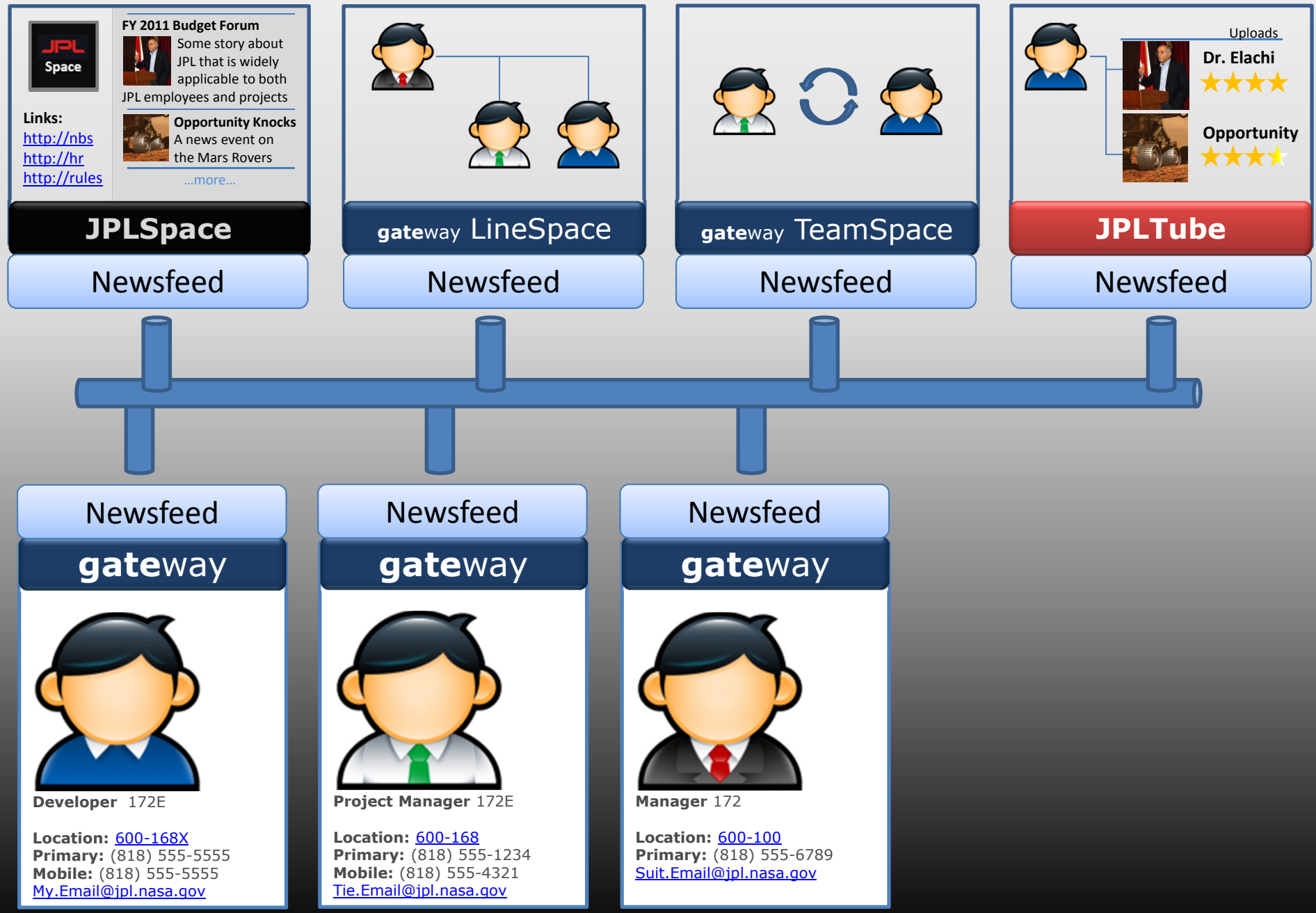
Peer-to-Peer (Distributed)



The Architecture



Single Enterprise "Identity"



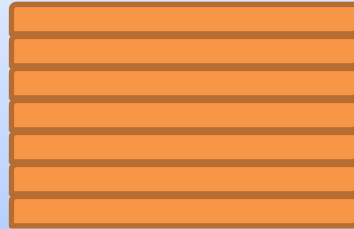
gateway



172E

Location: [600-168A](#)

My Wall



My Home
(aggregated view)

- Posted the video "Dr Elachi" (<http://ipitube/elachi>)
 Thanks, I missed the live event...
- Don't forget to attend the FY 2011 Budget forum presented by Dr. Elachi in the Flight Project Center Auditorium (12p, B321)
- I updated our doc on FY11 strategy
 We should also implement XYZ
 Agreed, I'll look into that further
- What is an OOR?
 Check this out: <http://iplwired/or>
- We're now supporting Bootcamp on Mac
- Great job on that demo!
 Thanks for attending.
- Remember your TPS report!
- There will be an outage this weekend
- I may need you all to come in this weekend
- We're closing out the 2010 budget
 Anything left?
 Massive profit this year!!!

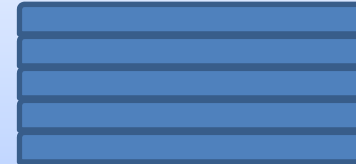
gateway



172E

Location: [600-168F](#)

Bob's Wall



gateway



172E

Location: [600-168E](#)

Sally's Wall



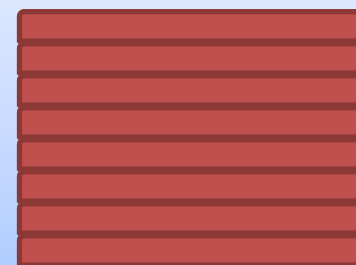
gateway



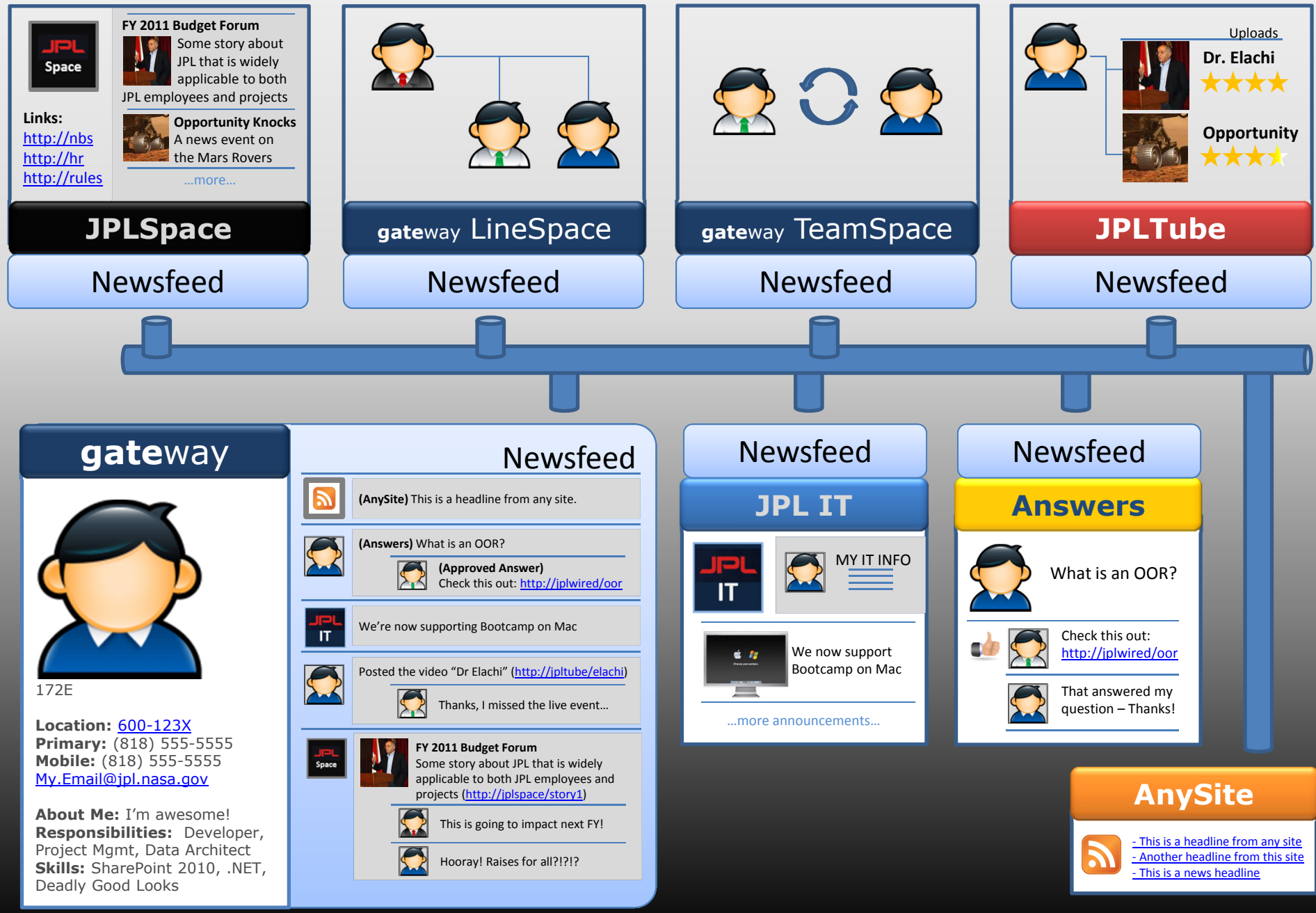
172E

Location: [600-168A](#)

Fred's Wall



Scalable and Extensible



Lessons Learned

- Determine how to measure value
 - Accept it may be difficult to quantify ROI for social networking
 - Start by defining appropriate usage metrics
 - Site hits
 - Content uploaded, edited, shared
 - Unique users
 - Adoption rate
 - Measure, Analyze and Act
- Acknowledge the following:
 - Deploying capabilities doesn't define success – enabling communication does
 - Benefits aren't realized overnight
 - Not everyone is interested in social networking – don't make it a requirement to collaborate

Lessons Learned (cont.)

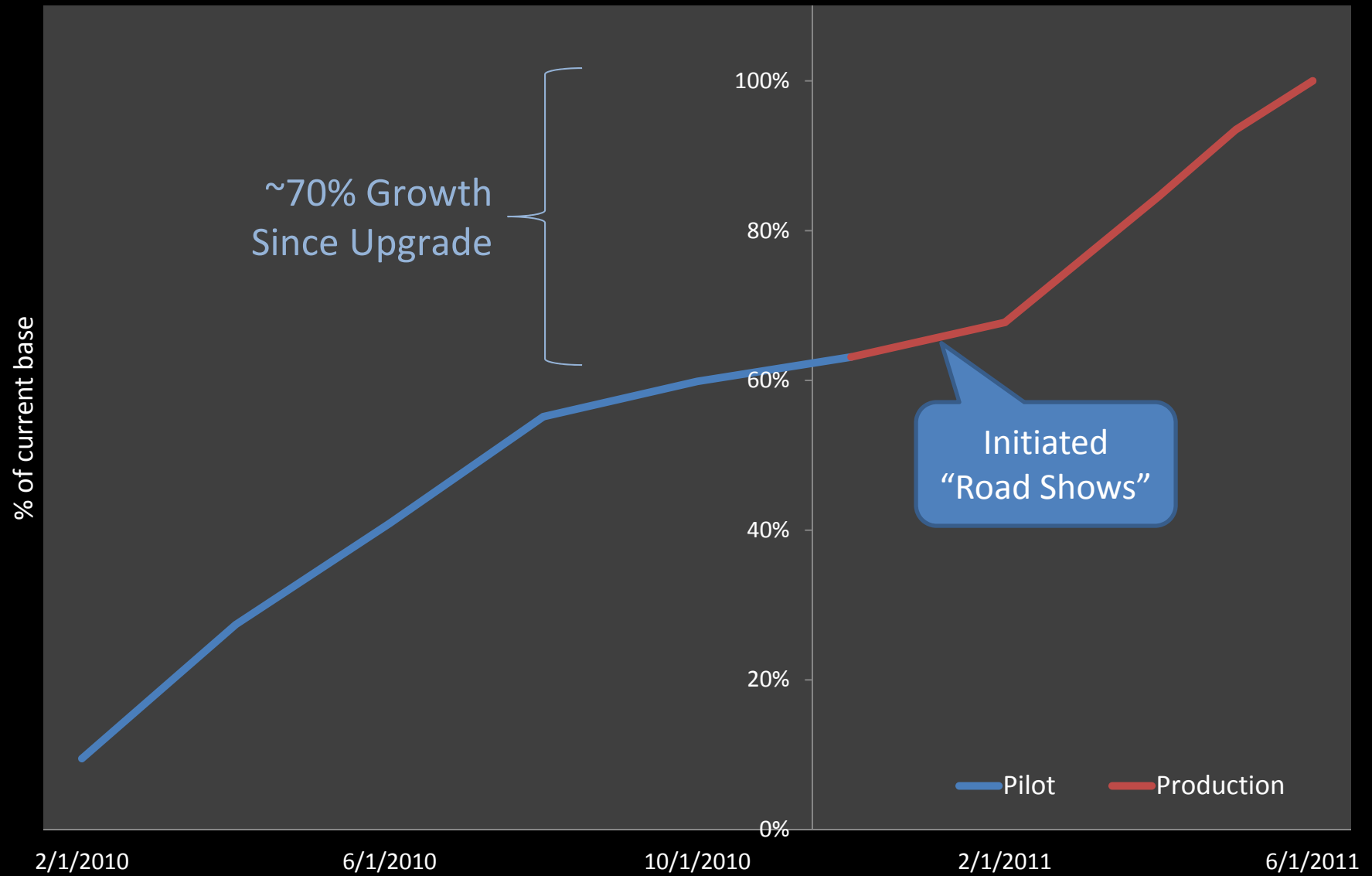
- Marketing

- Facebook-style social networking is often frowned upon, LinkedIn has a more positive connotation in the workplace
- Market the effort on solving collaboration needs over social networking to diminish any negative perceptions
- Foster a sense of community through branding it to your organization (e.g. JPL Gateway)
- Develop a road show

- Ease Of Use

- Implement one-click processing to get started
- Automate information reuse wherever possible
- Standardize the public profile pages, team areas, etc. to reduce confusion when navigating between areas
- Provide excellent help areas and tutorials

JPL Gateway User Adoption



Lessons Learned (cont.)

- Training
 - ▣ Concierge Support
 - ▣ E-Learning Courses
 - ▣ Video and quick start guides
 - ▣ In-house and outsourced training
 - ▣ Online-based “Help Center”
 - ▣ Technology Demos and Road Shows

Strategic Alignment

- Information management
 - ▣ Approaching a Drag + Drop + Sync + Share environment
 - ▣ Governance applied and enforced through the Software as a Service solution
- To leverage core features of the Platform as a Service architecture
 - ▣ Search
 - ▣ Scalability/Elasticity/Performance
 - ▣ Workflow
 - ▣ Design/End-User Experience
 - ▣ Real-Time Collaboration
 - ▣ Records Management

User My Site

gateway

Search + People +...

My SiteMy WorkspaceMy ProfileSign Out

My Profile
Edit My Profile
Edit My Links
My Colleagues
My Memberships

Surveys
Gateway Feedback
Round 2 Survey

Documents
Personal Documents
Shared Documents
Site Pages
Slide Library
Luke's Slide Library

Pictures
Portfolio
Shared Pictures

Lists
Calendar
Portfolio Information

My Links
General
JPL Wired
JPLIT Resources
MESH Pilot
OCIO Page

Useful Links
BOSS Business Ops Support
Cafeteria Menu
Conference Rooms
JPL Jobs
JPLIT
JPLTube
Maps - JPL with Bus & Shuttle
Timekeeping
Travel

My Newsfeed
Share something...

**Dahl, Luke B (172E)** -> **OCIO Consulting: 1 Documents** Uploaded
**Section_172_Mentoring_Program.docx**
<https://gateway.jpl.nasa.gov/>
3 minutes ago

**Dahl, Luke B (172E)** -> **SharePoint Development: 1 Documents** Uploaded
**Gartner Catalyst Social Networking Outline.docx**
<https://gateway.jpl.nasa.gov/>
4 minutes ago

**Dahl, Luke B (172E): 1 Video Posted**
**iPad Promo Video**
Source: <https://jpltube.jpl.nasa.gov/>
5 minutes ago

**Riley, Betsy N (1172): Leadership Quote**
"Whenever ideas are shared, the result is always greater than the sum of the parts." ~ Rich Willis
5 hours ago

**Riley, Betsy N (1172): A book about turning problems into solutions. At the very least the video is worth watching.**

<http://youtu.be/gY1rwzqOUKk>

Memberships
Gateway Sites
Div. 27 Tech Council
Sage
IT CTO Team Space
PS/EPS project
173 Management
173 Sandbox Site
Consulting Thinktank
Mike's Testing Environment
172 Business Site
VSS Upgrade
Show 11 additional memberships
Manage Memberships

Distribution Lists
seqmeet
dta_eischg
afuq_psg
172d_metrics
ocengineer
jpllit.eng.stor
ocio_10_students
test_luke
eis-assets
jpllit.eng.san
Show 136 additional memberships

Colleagues

Guinn, Joseph R (3430)Adamiak, Susan M (172C)Aradhya, Shruthi (171B)

Averill, Paul A (173D)Bean, Jim W (172K)Beiler, Paul H (1722)
Manage colleagues

User Profile

gateway

Search + People +...My SiteMy WorkspaceMy ProfileSign Out

English, Melissa J (1720)



Division Manager
1720

Location: 600-150

Melissa.J.English@jpl.nasa.gov
Mobile: (818) 653-9558
Fax: (818) 393-9004
Primary: (818) 354-2650

Manager of the Application Development and Flight Project Support Division.

Details

Expertise:
Division Manager, Mentoring, Career Development, project management, resource management, Strategy, CAE Tool Service Manager

Past projects:
PDMS, iPICS

Badge Number:
103363

Skills:
Line Management, Project Management

Schools:
University of California at Irvine, Pepperdine University

Birthday:
August 21

Interests:
Hiking, cycling, running, Backpacking, Canoeing

Shared Documents

Find all documents by English, Melissa J (1720)

Type	Name	Last Modified	Loca
	SMAP Factsheet 05 17 2011	5/27/2011 8:52 AM	Wall f
	Mission and	5/27/2011 8:47 AM	Wall f

Melissa's Newsfeed Wall

Share something...



English, Melissa J (1720): 1 Documents Uploaded

SMAP Factsheet 05 17 2011.pdf
<https://gateway.jpl.nasa.gov/>

4 hours ago

Write a comment...



English, Melissa J (1720): 1 Documents Uploaded

Mission and Values.pptx
<https://gateway.jpl.nasa.gov/>

4 hours ago

Write a comment...



Dahl, Luke B (172E): 1 Video Posted



iPad Demo Video
Source: <https://iptube.jpl.nasa.gov/>

4 hours ago

Write a comment...



English, Melissa J (1720) added Means, Erin K (172F) as a colleague



Trinh, Cindy Q (1722): Here's the link to the Master Calendar: [http://chps-prod-nlb.jpl.nasa.gov:12345/sites/qtr/April2011/Lists/Projects/Customer Calendar.aspx](http://chps-prod-nlb.jpl.nasa.gov:12345/sites/qtr/April2011/Lists/Projects/Customer%20Calendar.aspx)

4 weeks ago

Write a comment...

In Common Between Us

First manager we both share



Rinaldi, James J (1700)
Director for 1700

Colleagues we both know



Seixas, Bill (1740)



Trinh, Cindy Q (1722)



Ning, Don S (172G)



Merrill, Susan J (1721)

Show additional colleagues

Memberships we both share

jump_review_small

jump_review_medium

jpl-id.orr

ffrdc-eapps

172_strategy

ext.ps.itelc_collaboration

cdwg

jump_review_large

172-reviews.mmr

172-reviews.jump

Show 68 additional results

Skills

Project Management, Line Management

Interests

Hiking, running

Other Colleagues



Brar, Jatinder S (1700)



Bryan, Kari A (172K)



Campbell



Cureton

User WorkSpace

[My Site](#) | [My Workspace](#) | [My Profile](#) |

Site Actions Browse Page

Dahl, Luke B (172E) ▾

I Like It Tags & Notes

gateway Dahl, Luke B (172E) ▸ My WorkSpace

decision meeting assets web db

Surveys

Gateway Feedback

Round 2 Survey

Documents

Personal Documents

Shared Documents

Site Pages

Slide Library

Luke's Slide Library

Pictures

Portfolio

Shared Pictures

Lists

Calendar

Portfolio Information

Site Content

Calendar

Form Templates

Gateway Feedback

Luke's Slide Library

Newsfeed

Personal Documents

Portfolio

Portfolio Information

Round 2 Survey

Shared Documents

Shared Pictures

Site Assets

Site Pages

Slide Library

Style Library

assets web db

decision meeting

Recycle Bin

All Site Content

Personal Documents

Type	Name	Modified	Modified By
	2011_A2_ECAP_LDahl	4/5/2011 3:05 PM	Dahl, Luke B (172E)
	CASB_Net_Strategy	5/11/2011 11:32 AM	Dahl, Luke B (172E)
	Consolidated_Platform	4/7/2011 7:01 PM	Dahl, Luke B (172E)
	CPJ_EC_Presentation	3/1/2011 10:56 AM	Dahl, Luke B (172E)
	Diamond Meeting Notes	3/31/2011 9:34 PM	Dahl, Luke B (172E)
	Dice meeting notes	3/10/2011 5:13 PM	Dahl, Luke B (172E)
	EC Calendar ORR - Converted	1/27/2011 8:05 AM	Dahl, Luke B (172E)
	EC Calendar ORR	1/27/2011 8:02 AM	Dahl, Luke B (172E)
	EC-Planner Calendar Demo	1/27/2011 8:18 AM	Dahl, Luke B (172E)
	Gateway_IT_Talk_Submission	5/27/2011 1:05 PM	Dahl, Luke B (172E)
	Mike Post Vacation Tag-up	3/7/2011 8:18 AM	Dahl, Luke B (172E)
	TRAVEL PLANS SXSW 2011	2/10/2011 5:00 PM	Dahl, Luke B (172E)
	University Site Implementations.JPL Gateway12.14.10	3/31/2011 9:31 PM	Dahl, Luke B (172E)
	WebFollowUp	5/3/2011 4:08 PM	Dahl, Luke B (172E)

Add document

Shared Documents

Type	Name	Modified	Modified By
	Dahl, Luke B (172E)	12/14/2009 9:09 AM	Dahl, Luke B (172E)
	Liu, Jeff Y (172E)	12/14/2009 9:11 AM	Liu, Jeff Y (172E)
	Newsletters	2/16/2011 2:59 PM	Dahl, Luke B (172E)
	OneNote 2010 Guide	5/23/2011 2:27 PM	Dahl, Luke B (172E)
	Randall, Jessica M (172E)	6/2/2010 3:42 PM	Randall, Jessica M (1150-Affiliate)
	Wall Posts	1/15/2011 12:46 AM	System Account
	Working with HR	2/3/2011 11:05 AM	Dahl, Luke B (172E)
	172D Newsletter Inputs February 11	3/7/2011 2:21 PM	Ma, Ricky W (172E)
	Academy Leadership Results	2/4/2011 6:56 AM	Dahl, Luke B (172E)
	Casani Training Modules	5/4/2011 3:48 PM	Casani, John R (1000)
	Consulting Workshop Summary	5/9/2011 11:19 AM	Dahl, Luke B (172E)
	EC Calendar ORR	4/7/2011 8:09 AM	Dahl, Luke B (172E)
	ECM FY12 CCAB Proposalvc_Id	2/10/2011 9:54 AM	Dahl, Luke B (172E)
	ECM Update CCAB	5/24/2011 11:39 AM	Dahl, Luke B (172E)
	Finding JPL Project Information Presentation, 2011 ppt	4/26/2011 10:30 AM	Dahl, Luke B (172E)
	Gateway Gartner Presentation Draft	6/1/2011 1:30 PM	Dahl, Luke B (172E)

My Links

General

JPL Wired

JPLIT Resources

MESH Pilot

OCIO Page

Useful Links

BOSS Business Ops Support

Cafeteria Menu

Conference Rooms

JPL Jobs

JPLIT

JPLTube

Maps - JPL with Bus & Shuttle

Timekeeping

Travel

Visitor Request Form

WOCD Org Chart

Add Link

Manage Links

https://gateway.jpl.nasa.gov/Person.aspx

Team Site

POWERED BY
OCIO

OCIO Consulting >

I Like It

Tags & Notes

Home

Search this site...

Surveys

Pictures

Shared Pictures

Libraries

Shared Documents

Meeting Minutes

Training Resources

Lists

Calendar

OCIO Consulting Action Items

Application List

Customers

Customer Interactions

Potential SAT Topics

Client Contacts

Discussions

Team Discussion

Sites

People and Groups

Recycle Bin

All Site Content

Home

Shared Documents

Meeting Minutes

OCIO Consulting Action Items

Customer Interactions

Type

Name

Modified

Modified By

Wall Posts

1/24/2011 5:00 PM

System Account

Consulting Discussion - Org Teaming

3/29/2011 5:05 PM

Narva, John R (1723)

Tri_L_handout_2011-01-30_1

2/1/2011 7:36 AM

English, Melissa J (1720)

Add document

Type

Name

Modified

Modified By

Consulting Program1-18-11 minutes

3/15/2011 10:13 AM

English, Melissa J (1720)

Consulting Program1-31-11 minutes

2/14/2011 4:40 PM

Dahl, Luke B (172E)

Consulting Program2-14-11 minutes

2/14/2011 5:14 PM

Dahl, Luke B (172E)

Consulting Program3-1-11 minutes

3/4/2011 2:15 PM

Cornwell, Christopher N (1750)

Consulting Program3-14-11 minutes

3/15/2011 8:25 AM

English, Melissa J (1720)

Consulting Program3-29-11 minutes

4/1/2011 12:05 PM

English, Melissa J (1720)

Consulting Program4-12-11 minutes

4/12/2011 5:34 PM

Stefanini, Michael (1722)

OCIO Services Awareness v1

2/14/2011 5:07 PM

Rangel, Gabriel (1760)

Add document

Type

Title

Assigned To

Status

Priority

Due Date

% Complete

Predecessors

Create Proto Teamsite for OCIO Consulting

Ma, Ricky W (172E)

Completed

(2) Normal

1/31/2011

100 %

Reserve conf. rooms for SAT's

Dahl, Luke B (172E)

Completed

(2) Normal

3/14/2011

Booking Kawasaki to speak at JPL

Soderstrom, Tomas J (1760)

Completed

(2) Normal

3/29/2011

Purchasing Kawasaki's book

Kollwad, Sonny K (1711)

Completed

(2) Normal

Handouts/user guides for Video Collaboration SAT

Cornwell, Christopher N (1750)

Not Started

(2) Normal

3/29/2011

Coordinate the training and demonstration for VC SAT

Lebl, Joy L (1730)

Not Started

(2) Normal

3/28/2011

Schedule a "train the trainer" session

Dahl, Luke B (172E)

Completed

(2) Normal

3/28/2011

Coordinate the training and demonstration for VC SAT

Add new item

Created

Title

Customer

Project

Links

Gateway Home

JPL Space

JPL Tube

SharePoint CRM Template

Microsoft BCM - Business Contact Manager

More info on the MS BCM 2010

More Links...

Add new link

OCIO Consulting's Newsfeed Wall

Share something...

English, Melissa J (1720): 1 Documents Uploaded

Consulting Discussion - Org Teaming.docx

https://gateway.jpl.nasa.gov/

2 months ago

Write a comment...

Cornwell, Christopher N (1750): Melissa, Thanks for adding me!

2 months ago

Write a comment...

Stefanini, Michael (1722): 3 Images Uploaded

View picture library...

3 months ago

Write a comment...

Stefanini, Michael (1722): 2 Images Uploaded

View picture library...

3 months ago



Questions?